L5-W6-DBS301-joins

1. Display the department name, city, street address and postal code for all Departments. Use the JOIN and USING form of syntax.

Sort the output by department name descending.

SELECT DEPARTMENT\_NAME, CITY, STREET\_ADDRESS, POSTAL\_CODE

FROM DEPARTMENTS

JOIN LOCATIONS

USING (LOCATION\_ID)

ORDER BY DEPARTMENT\_NAME DESC;

DEPARTMENT\_NAME CITY STREET\_ADDRESS POSTAL\_CODE

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Shipping South San Francisco 2011 Interiors Blvd 99236

Sales Oxford Magdalen Centre, The Oxford Science Park OX9 9ZB

Marketing Toronto 147 Spadina Ave M5V 2L7

IT Southlake 2014 Jabberwocky Rd 26192

Executive Seattle 2004 Charade Rd 98199

Contracting Seattle 2004 Charade Rd 98199

Administration Seattle 2004 Charade Rd 98199

Accounting Seattle 2004 Charade Rd 98199

8 rows selected

2. Display full name of the employees, their hire date and salary together with their department name, but only for departments which names start with **A** or **S**. Full name should be in format of :

**First / Last.** Use the JOIN and ON form of syntax.

Sort the output by department name and then by last name.

SELECT FIRST\_NAME || '/' || LAST\_NAME AS "Full Name", HIRE\_DATE, SALARY, DEPARTMENT\_NAME

FROM EMPLOYEES e

JOIN DEPARTMENTS d

ON e.DEPARTMENT\_ID=d.DEPARTMENT\_ID

WHERE DEPARTMENT\_NAME LIKE 'A%'

OR DEPARTMENT\_NAME LIKE 'S%'

ORDER BY DEPARTMENT\_NAME, LAST\_NAME;

Full Name HIRE\_DATE SALARY DEPARTMENT\_NAME

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William/Gietz 94-06-07 8300 Accounting

Shelley/Higgins 94-06-07 12000 Accounting

Jennifer/Whalen 87-09-17 4400 Administration

Ellen/Abel 96-05-11 11000 Sales

Jonathon/Taylor 98-03-24 8600 Sales

Eleni/Zlotkey 00-01-29 10500 Sales

Curtis/Davies 97-01-29 3100 Shipping

Randall/Matos 98-03-15 2600 Shipping

Kevin/Mourgos 99-11-16 5800 Shipping

Trenna/Rajs 95-10-17 3500 Shipping

Peter/Vargas 98-07-09 2500 Shipping

11 rows selected

3. Rewrite the previous question by using Standard (Old -- prior to Oracle9i) Join

method.

~~SELECT FIRST\_NAME || '/' || LAST\_NAME AS "Full Name", HIRE\_DATE, SALARY, DEPARTMENT\_NAME~~

~~FROM EMPLOYEES e~~

~~JOIN DEPARTMENTS d~~

~~USING (DEPARTMENT\_ID)~~

~~WHERE DEPARTMENT\_NAME LIKE 'A%'~~

~~OR DEPARTMENT\_NAME LIKE 'S%'~~

~~ORDER BY DEPARTMENT\_NAME, LAST\_NAME;~~

SELECT FIRST\_NAME || '/' || LAST\_NAME AS "Full Name", HIRE\_DATE, SALARY, DEPARTMENT\_NAME

FROM EMPLOYEES e, DEPARTMENTS d

WHERE (DEPARTMENT\_NAME LIKE 'A%'

OR DEPARTMENT\_NAME LIKE 'S%')

AND e.DEPARTMENT\_ID=d.DEPARTMENT\_ID

ORDER BY DEPARTMENT\_NAME, LAST\_NAME;

Full Name HIRE\_DATE SALARY DEPARTMENT\_NAME

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William/Gietz 94-06-07 8300 Accounting

Shelley/Higgins 94-06-07 12000 Accounting

Jennifer/Whalen 87-09-17 4400 Administration

Ellen/Abel 96-05-11 11000 Sales

Jonathon/Taylor 98-03-24 8600 Sales

Eleni/Zlotkey 00-01-29 10500 Sales

Curtis/Davies 97-01-29 3100 Shipping

Randall/Matos 98-03-15 2600 Shipping

Kevin/Mourgos 99-11-16 5800 Shipping

Trenna/Rajs 95-10-17 3500 Shipping

Peter/Vargas 98-07-09 2500 Shipping

11 rows selected

4. Display full name of the manager of each department in provinces Ontario,

California and Washington plus department name, city, postal code and province name. Full name should be in format as follows:

**Last, First.** Use the JOIN and ON form of syntax.

Sort the output by city and then by department name.

SELECT LAST\_NAME || ',' || FIRST\_NAME, DEPARTMENT\_NAME, CITY, POSTAL\_CODE, STATE\_PROVINCE

FROM EMPLOYEES e

JOIN DEPARTMENTS d

ON e.EMPLOYEE\_ID=d.MANAGER\_ID

JOIN LOCATIONS l

ON l.LOCATION\_ID=d.LOCATION\_ID

WHERE STATE\_PROVINCE IN ('Ontario', 'California', 'Washington')

ORDER BY CITY, DEPARTMENT\_NAME;

LAST\_NAME||','||FIRST\_NAME DEPARTMENT\_NAME CITY POSTAL\_CODE STATE\_PROVINCE

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Higgins,Shelley Accounting Seattle 98199 Washington

Whalen,Jennifer Administration Seattle 98199 Washington

King,Steven Executive Seattle 98199 Washington

Mourgos,Kevin Shipping South San Francisco 99236 California

Hartstein,Michael Marketing Toronto M5V 2L7 Ontario

5 rows selected

5. Rewrite the previous question by using Standard (Old -- prior to Oracle9i) Join method.

SELECT LAST\_NAME || ',' || FIRST\_NAME, DEPARTMENT\_NAME, CITY, POSTAL\_CODE, STATE\_PROVINCE

FROM EMPLOYEES e, DEPARTMENTS d, LOCATIONS l

WHERE STATE\_PROVINCE IN ('Ontario', 'California', 'Washington')

AND e.EMPLOYEE\_ID=d.MANAGER\_ID

AND l.LOCATION\_ID=d.LOCATION\_ID

ORDER BY CITY, DEPARTMENT\_NAME;

LAST\_NAME||','||FIRST\_NAME DEPARTMENT\_NAME CITY POSTAL\_CODE STATE\_PROVINCE

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Higgins,Shelley Accounting Seattle 98199 Washington

Whalen,Jennifer Administration Seattle 98199 Washington

King,Steven Executive Seattle 98199 Washington

Mourgos,Kevin Shipping South San Francisco 99236 California

Hartstein,Michael Marketing Toronto M5V 2L7 Ontario

5 rows selected

6. Display the department name and Highest, Lowest and Average pay per each department. Name these results *High, Low* and *Avg.*

Use JOIN and ON form of the syntax.

Sort the output so that department with highest average salary are shown first.

SELECT DEPARTMENT\_NAME, MAX(SALARY) AS "High", MIN(SALARY) AS "Low", ROUND(AVG(SALARY), 2) AS "Avg"

FROM DEPARTMENTS d

JOIN EMPLOYEES e

ON d.DEPARTMENT\_ID = e.DEPARTMENT\_ID

GROUP BY DEPARTMENT\_NAME

ORDER BY 4 DESC;

DEPARTMENT\_NAME High Low Avg

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Executive 24000 17000 19333.33

Accounting 12000 8300 10150

Sales 11000 8600 10033.33

Marketing 13000 6000 9500

IT 9000 4200 6400

Administration 4400 4400 4400

Shipping 5800 2500 3500

7 rows selected

7. Display the employee last name and employee number along with their manager’s last name and manager number. Label the columns Employee,

Emp#, Manager, and Mgr#, respectively. Include also employees who do

NOT have a manager and also employees who do NOT supervise anyone (or

you could say managers without employees to supervise).

SELECT e.LAST\_NAME AS "Employee", e.EMPLOYEE\_ID AS "Emp#", m.LAST\_NAME AS "Manager", m.MANAGER\_ID AS "Mgr#"

FROM EMPLOYEES e FULL OUTER JOIN EMPLOYEES m ON (e.MANAGER\_ID = m.EMPLOYEE\_ID);

/\*

If not “Include also employees who do NOT have a manager and also employees who do NOT supervise anyone” -🡪>> using LEFT OUTER JOIN

\*/

Employee Emp# Manager Mgr#

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Hartstein 201 King

Zlotkey 149 King

Mourgos 124 King

De Haan 102 King

Kochhar 101 King

Higgins 205 Kochhar 100

Whalen 200 Kochhar 100

Hunold 103 De Haan 100

Lorentz 107 Hunold 102

Ernst 104 Hunold 102

Ernst 103

Lorentz 103

Vargas 144 Mourgos 100

Matos 143 Mourgos 100

Davies 142 Mourgos 100

Rajs 141 Mourgos 100

Rajs 124

Davies 124

Matos 124

Vargas 124

Grant 178 Zlotkey 100

Taylor 176 Zlotkey 100

Abel 174 Zlotkey 100

Abel 149

Taylor 149

Grant 149

Whalen 101

Fay 202 Hartstein 100

Fay 201

Gietz 206 Higgins 101

Gietz 205

King 100

32 rows selected